

Title (en)  
CHARGE/DISCHARGE TEST SYSTEM AND CHARGE/DISCHARGE TEST METHOD

Title (de)  
LADE-/ENTLADETESTSYSTEM UND LADE-/ENTLADETESTVERFAHREN

Title (fr)  
SYSTÈME DE TEST DE CHARGE/DÉCHARGE ET PROCÉDÉ DE TEST DE CHARGE/DÉCHARGE

Publication  
**EP 4202463 A4 20240417 (EN)**

Application  
**EP 21880518 A 20211013**

Priority  
• KR 20200132068 A 20201013  
• KR 2021014149 W 20211013

Abstract (en)  
[origin: EP4202463A1] Provided is a charging/discharging test system and method. The charging/discharging test system includes a charging/discharging test device connectable to a test target; and a controller to output a first control signal commanding to start a charging/discharging test for a first battery provided as the test target. The charging/discharging test device repeatedly performs a first charge/discharge cycle until a cumulative capacity of the first battery by the first charge/discharge cycle reaches a reference capacity in response to the first control signal. The first charge/discharge cycle equals first constant current charging until a first end-of-charge voltage is reached, a first rest period, first constant current discharging until a first end-of-discharge voltage is reached and a second rest period in a sequential order, at a first temperature condition. Each time the first charge/discharge cycle is performed, the controller adds the cumulative capacity and a voltage drop of the first battery over the first rest period to a first test dataset associated with the first charge/discharge cycle.

IPC 8 full level  
**G01R 31/392** (2019.01); **G01R 31/36** (2020.01); **G01R 31/382** (2019.01); **H02J 7/00** (2006.01)

CPC (source: EP KR US)  
**G01R 31/3646** (2019.01 - KR); **G01R 31/3648** (2013.01 - KR); **G01R 31/374** (2019.01 - US); **G01R 31/382** (2019.01 - KR); **G01R 31/3835** (2019.01 - US); **G01R 31/386** (2019.01 - EP); **G01R 31/392** (2019.01 - EP KR US); **H02J 7/0013** (2013.01 - US); **H02J 7/0047** (2013.01 - EP KR); **H02J 7/0048** (2020.01 - EP US); **H02J 7/005** (2020.01 - EP); **H02J 7/00712** (2020.01 - KR); **H02J 7/007182** (2020.01 - US); **Y02E 60/10** (2013.01 - EP)

Citation (search report)  
• [I] US 5160880 A 19921103 - PALANISAMY THIRUMALAI G [US]  
• [A] US 2020217898 A1 20200709 - LEE YOUNG-KUG [KR], et al  
• [A] JP 2001102097 A 20010413 - NIPPON TELEGRAPH & TELEPHONE  
• See also references of WO 2022080871A1

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**EP 4202463 A1 20230628**; **EP 4202463 A4 20240417**; CN 115885188 A 20230331; KR 20220048782 A 20220420; US 2023243894 A1 20230803; WO 2022080871 A1 20220421

DOCDB simple family (application)  
**EP 21880518 A 20211013**; CN 202180041690 A 20211013; KR 20200132068 A 20201013; KR 2021014149 W 20211013; US 202118007924 A 20211013